

Application No.: 10/058,047**Docket No.: 30011732-4 US (1509-256)****REMARKS**

To obviate the objection of claims 13 and 14 because they are numbered twice and should be numbered as 15 and 16, claims 13 and 14 (second set) are amended so that the numbers therefor are now 15 and 16, respectively.

The claims have been carefully reviewed and have been amended to obviate possible antecedent problems, to assure open ended coverage, to eliminate some of the means plus function limitations so the vast majority of the claims can not be interpreted under 35 U.S.C. 112, paragraph 6, and for clarity. Claims 42-49, each of which is dependent on a different independent claim, have been added. These claims require the display of the visual indication of the orientation to be on a display that is dedicated only to visual display.

Applicants traverse the rejection of claims 1-5, 7, 13-16, 18-20, 21, 24, 25, 33-39 and 41 as being anticipated by Zwern (U.S. Publication 2001/0038378). Of these claims, claims 1, 20, 21 and 35-39 are independent claims, and the remainder are dependent claims. In rejecting the foregoing claims as being anticipated by Zwern, the Examiner opines that the spatialized audio reads on "varying an offset between audio field reference relative to which sound sources are located in the audio field and a presentation reference." The Examiner also alleges view port 22 of Zwern has a cursor which visually indicates the orientation of the audio field reference relative to a predetermined indicator reference.

Concerning the comment by the Examiner with regard to view port 22, applicants can not agree that the cursor of view port 22 provides a visual indication of the orientation of the audio field reference relative to a predetermined indicator reference. The Zwern cursor merely provides a visual reference within a current view port 22 and can be used for indicating an item to be selected

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by being moved to overly that item. There does not appear to be a disclosure of a cursor being used to provide a visual indication of "the orientation of the audio-field reference relative to a predetermined indicator reference" as independent claims 1, 20, 21, 35, 36, 37, 38 and 39 require.

In opining that the spatialized audio reads on "varying an offset between audio field reference relative to which sound sources are located in the audio field and a presentation reference, the Examiner apparently relies on inherency. However, the Examiner has not met the necessary requirements for a proper inherency rejection. The fact that a certain result or characteristic *may* occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993); *In re Oelrich*, 666 F.2d 578, 581-82, 212 U.S.P.Q. 323, 326 (C.C.P.A. 1981). To establish inherency, extrinsic evidence must make clear that the missing descriptive matter is *necessarily* present in the thing described in the reference and that it would be so recognized by persons of ordinary skill in the art. Inherency may not be established by possibilities or probabilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. *In re Roberston*, 169 F.3d 743, 745, 49 U.S.P.Q.2d 1949, 1950-51 (Fed. Cir. 1999). In relying upon a theory of inherency, the Examiner must provide a basis in fact or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the prior art. *Ex parte Levy*, 17 U.S.P.Q.2d 1461, 1464 (B.P.A.I. 1990).

Hence, the Examiner must show that the spatialized audio necessarily reads on the requirement to vary an offset between an audio field reference relative to which sounds sources are located in the audio field and a presentation reference, by representing sufficient rationale and/or evidence to support his position. Since the Examiner has not shown by evidence or rationale that the Zwern spatialized audio necessarily reads on varying an offset between audio field reference

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relative to which sound sources are located in an audio field and a presentation reference, the anticipation rejection of claims 1-5, 7, 13-16, 18-20, 21, 24, 25, 33-39 and 41 is incorrect.

Applicants traverse the rejection of claims 6, 8-12, 22, 23, 26-32 and 40 as being obvious as a result of Zwern in view of Armstrong (USP 6,906,700). These claims are patentable with the claims upon which they depend because Armstrong does not cure the foregoing defects in Zwern.

Applicants traverse the rejection of claims 1, 4, 20 and 35 as being obvious as a result of Jacknin et al. (USP 5,854,843) in view of Foxlin (U.S. Publication 2002/0024675). Jacknin et al. discloses a virtual navigator to measure the orientation of a human head for synthesis of virtual, directional audio over headphones. Jacknin et al. indicates that in virtual audio, naturally occurring spatial information is encoded onto an audio signal that is presented as a sound source image over stereo headphones. Jacknin et al. uses digital signal processing techniques to preserve the directional sound information by continually updating the sound field relative to the orientation of a listener's head, to keep the direction of the sound sources stationary with respect to the listener (column 2, line 61-column 3, line 16). In order for sounds to appear to be static relative to a location of a listener, the rendering positions of the sounds must be determined as a combination of the positions of the sounds relative to an audio field reference and an offset corresponding to the head rotation of the subject listening to the sounds. Thus, Jacknin et al. appears to disclose the well known and admittedly old concept of controlling an offset between an audio-field reference and a presentation reference. The offset is the head rotation value of the person listening to the sound sources.

The Examiner admits Jacknin et al. does not disclose determining and visually indicating the orientation of an audio field reference relative to a predetermined indicator reference. The Examiner relies on Foxlin to disclose this feature. The Office Action states Figure 4 of Foxlin

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discloses a virtual reality visual scene of a cockpit which visually indicates the orientation of a visual field relative to an indicator reference. Applicants are unable to determine the basis for the foregoing statement about Foxlin in the Office Action. The brief description of Figure 4 on page 3, paragraph 0054, indicates Figure 4 is a view of an information cockpit. Page 6, paragraph 0100, describes Figure 4 in detail and indicates it is an example of an information cockpit for an outdoor navigation application. An active field of view of a see-through head mounted device (HMD) is indicated by a heavy black rectangle on Figure 4. Thus, features within the heavy black rectangle are visible to the user. Rotating the head of a wearer of the HMD moves the active view port around the scene to reveal other features once they are inside the heavy black rectangle. Icons 401 that are always in the upper right of the display are always visible. Additional icons in a dashboard that are stabilized to an information cockpit can only be seen when the user looks down to check icons. Based on the foregoing, the Examiner is requested to indicate what structure in Foxlin is considered to be a predetermined indicator reference that takes into account, at least at a component value, of any change in value of an offset and any change in value of an indicator reference orientation relative to a presentation reference, at least where such changes do not match each other, as required by claims 1, 20 and 35. The Office Action fails to mention any aspects of claims 1, 20 and 35 relating to what the predetermined indicator reference takes into account.

Applicants also traverse the rejection of claims 1, 4, 20 and 35 because the Office Action fails to provide an adequate basis for combining Jacknin et al. and Foxlin. The Office Action relies on hindsight to state it would have been obvious to modify Jacknin et al. to include a virtual reality scene, as disclosed in Figure 4 of Foxlin, for the purpose of increasing the realism of the Jacknin et al. virtual navigator. The Office Action rationale is defective because it relies on hindsight and because it does not indicate why or how the Foxlin virtual reality scene would increase the realism

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of the Jacknin et al. arrangement. The Examiner must also explain how one of ordinary skill in the art would have modified Jacknin et al. as a result of the Foxlin disclosure.

Claim 4 is allowable with claim 1 upon which it depends.

In view of the foregoing amendments and remarks, favorable reconsideration and allowance are respectfully requested and deemed in order.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 08-2025 and please credit any excess fees to such deposit account.

Respectfully submitted,

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